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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/720,710	06/01/2001	Vanessa Z.H. Chan	M0925/7067	5662

7590

04/22/2005

Timothy J Oyer  
Wolf Greenfield & Sacks  
Federal Reserve Plaza  
600 Atlantic Avenue  
Boston, MA 02210-2211

EXAMINER
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CHANG, VICTOR S

ART UNIT	PAPER NUMBER
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1771

DATE MAILED: 04/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/720,710

Applicant(s)

CHAN ET AL.

Examiner

Victor S. Chang

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 09 February 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-148 is/are pending in the application.
- 4a) Of the above claim(s) 2-16, 18-22, 25-29, 33-41, 46-63 and 107-148 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1, 17, 23, 24, 30-32, 42-45 and 64-68 are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Election/Restrictions*

1. Applicant's election with traverse of Group I, claims 1, 17, 23, 24, 30-32, 42-45, 64-68 and 139 in the reply filed on 2/9/2005 is acknowledged. The traversal is on the ground(s) that "it is believed that a single search and examination covering all claims will not place undue burden on the Examiner". This is not found persuasive because there are numerous patentably distinct species and methods of forming present in the originally submitted claims, and each requires a separate search for its patentably distinct elements. Additionally, it is noted claim 139 is a non-elected Species O (see Office action dated 10/6/2004 and Applicants' reply dated 11/8/2004), as such claim 139 is also withdrawn as non-elected.

The requirement is still deemed proper and is therefore made FINAL.

2. Upon careful reconsideration, the Examiner notes that the elected claims 1, 17, 23, 24, 30-32, 42-45, 64-68 in a response filed 2/9/2005 further contain the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1. As such, restriction requirement for, is necessary as follows:

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Group I, claims 1, 17, 23 and 24, drawn to a system comprising a polymeric article including a periodic structure of a plurality of periodically occurring separate domains, with at least a first and a second domain each being topologically continuous, and said first domain comprising a polymeric species containing an inorganic species capable of forming a ceramic oxide.

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Group II, claims 30-32 and 42-45, drawn to a periodic structure of a plurality of periodically occurring separate domains, with at least one domain comprising a molded structure formed of a liquid or solid material that cannot be formed into a periodic structure by self-assembly.

Group III, claims 64-68, drawn to a high dielectric constant material comprising a periodic molded structure of a plurality of periodically occurring separate domains.

4. The inventions listed as Groups I-III do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: For Group I, claim 1, the recited "a first and a second domain each being topologically continuous, and said first domain comprising a polymeric species containing an inorganic species capable of forming a ceramic oxide" is either anticipated by or obvious over the teachings by Lee et al. (Macromolecules, 22:pp.2602-2606 (1989) and 21:pp.276-278 (1988); see specification, page 3, second full paragraph) of block copolymer structures comprised of self-assembled block copolymers of poly(isoprene) and poly(4-vinylphenyl)dimethyl-2-propoxysilane. For Group III, claims 64-68, the recited "high dielectric constant material comprising a periodic molded structure of a plurality of periodically occurring separate domains" is either anticipated by or obvious over the teachings by LeBlanc, Jr. (US 4634501) of a organopolysiloxane-polycarbonate block copolymer has a complexed salt of the dicyanoaurate anion contained therein, and has a dielectric constant of from about 4 to about 13 (column 2, lines 16-18). As such, Group I and III lack novelty or inventive step, and does not make a contribution over the prior art. The unity of invention is lacking and restriction is appropriate.

5. Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

6. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

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7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Victor S. Chang whose telephone number is 571-272-1474. The examiner can normally be reached on 8:30 - 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel H. Morris can be reached on 571-272-1478. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Victor S Chang  
Examiner  
Art Unit 1771

4/15/2005